

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A process for producing a protein-polymer complex, comprising a step of reacting a protein having a polymer conjugated thereto via a thioester of a mercapto group of a cysteine residue of said protein with a polymer thereto-with a compound having a mercapto group to eliminate a the polymer which is ester-bound to a mercapto-group of a cysteine-residue of the protein.
2. (currently amended) The process according to claim 1, wherein the protein conjugated with a polymer ~~thereto~~ is obtained by reacting a protein having a cysteine residue with an activated polymer.
3. (original) The process according to claim 1, wherein the polymer is polyalkylene oxide.
4. (original) The process according to claim 3, wherein the polymer is polyethylene glycol.
5. (currently amended) The process according to claim 1, wherein the compound having a mercapto group is ~~any of~~ dithiothreitol, dithioerythritol, 2-mercaptoethanol, reduced glutathione ~~and or~~ N-acetyl-L-cysteine.
6. (original) The process according to claim 1, wherein the compound having a mercapto group is dithiothreitol or 2-mercaptoethanol.
7. (original) The process according to claim 1, wherein the protein is an enzyme.
8. (original) The process according to claim 7, wherein the enzyme contains a cysteine residue in an active center.
9. (original) The process according to claim 8, wherein the enzyme is methioninase, papain or transglutaminase.

10. (original) The process according to claim 1, wherein average 0.7 to 1.3 molecules of a polymer are eliminated per 1 subunit of a protein.

11. (canceled)

12. (original) The process according to claim 1, wherein the protein-polymer complex is a methioninase-polyethylene glycol complex, papain-polyethylene glycol complex or transglutaminase-polyethylene glycol complex.

13. - 15. (canceled)

16. (currently amended) A method for eliminating a polymer ~~which has ester-bound to that is bound to a protein by a thioester~~ of a mercapto group of a cysteine residue of the protein, comprising reacting ~~at the~~ protein conjugated with ~~at the~~ polymer ~~thereto~~ with a compound having a mercapto group.